CLAIMS

1.   (Currently Amended) A method comprising:

analyzing a data file representing a three dimensional object to automatically

identify a plurality of views of interest based on at least one observable characteristic of

the three dimensional object; ~~and~~

        automatically eliminating views with an information content below a threshold;

and

defining an access mechanism to permit the plurality of views to be accessed.

2.   (Original) The method of claim 1 wherein defining comprises:

automatically creating an adjusted scale representation of each view of interest;

and

associating the adjusted scale representation with an actuatable control.

3.   (Original) The method of claim 1 further comprising:

rendering a representation of the three dimensional object from the data file; and

automatically translating the object to a corresponding view of interest

responsive to an actuation of a control associated with a corresponding representation.

4.   (Original) The method of claim 1 wherein the plurality of views includes all six

orthogonal views.

5.   (Canceled)

6.   (Currently Amended) The method of claim ~~5~~1 wherein the information content

is determined relative to other views.

7.   (Currently Amended) ~~The~~ A method ~~of claim 1 further~~ comprising:

analyzing a data file representing a three dimensional object to automatically identify a plurality of views of interest based on at least one observable characteristic of the three dimensional object;

defining an access mechanism to permit the plurality of views to be accessed; and

permitting a user to create an additional access mechanism and associate a user specified view with the additional access mechanism.

8. (Original) The method of claim 1 further comprising:

automatically creating a sequence for presenting the plurality of views in a prescribed manner.

9. (Original) The method of claim 8 further comprising:

automatically presenting the sequence responsive to an event.

10. (Original) The method of claim 1 wherein the characteristic is one of:

shape of the object, texture map of the object, indicia of the object, local detail of the object, and color of the object.

11. (Currently Amended) ~~The~~ A method comprising:~~of claim 1 wherein analyzing the data comprises:~~

analyzing a data file representing a three dimensional object to automatically identify a plurality of views of interest based on at least one observable characteristic of the three dimensional object;

defining an access mechanism to permit the plurality of views to be accessed;

wherein analyzing includes detecting symmetry of the object; and

automatically determining a primary axis of orientation for presentation of the object.

12.   (Currently Amended) ~~The~~ A method comprising: ~~of claim 1 wherein analyzing the data comprises~~:

   analyzing a data file representing a three dimensional object to automatically identify a plurality of views of interest based on at least one observable characteristic of the three dimensional object; and

   automatically identifying homogenity exceptions in the object.

13.   (Original) The method of claim 11 wherein analyzing the data further comprises: determining volumetric distribution of features of the object.

14.   (Original) A method comprising:

   rendering a three dimensional representation of an object from a data file;

   accepting a definition of a feature of interest;

   searching the data file for a region substantially conforming to the definition; ~~and~~

   displaying an orientation and magnification that permits viewing of the feature ~~.~~;

   tracking user behavior when viewing the representation of the three dimensional object;

   inferring from the behavior a view of interest; and

   defining an access mechanism to subsequently permit the view to be automatically accessed.

15.   (Original) The method of claim 14 wherein the definition is given by one of:

   at least one stock criterion;

   at least one user-specified criterion; and

   a combination of user specified and stock criteria.

16.   (Original) The method of claim 14 wherein the definition includes at least one of:

————geometrical shape of the object, surface texture of the object, indicia of the object, and local detail of the object.

17.   (Original) The method of claim 14 further comprising:

highlighting the feature of interest in the orientation and magnification displayed.

Claim 18 (Canceled).

19.   (Currently Amended) The method of claim ~~18~~ 14 wherein the view includes a specific orientation and a specific magnification.

Claims 20-35 (Canceled).

36.   (Currently Amended) ~~The~~ A method ~~of claim 1 further~~ comprising:

_____ analyzing a data file representing a three dimensional object to automatically identify a plurality of views of interest based on at least one observable characteristic of the three dimensional object;

_____ defining an access mechanism to permit the plurality of views to be accessed

displaying a representation of the three dimensional object in a viewing window;

determining if movement of a control device is within a tolerance range; and

automatically constraining rotation of the representation to a single axis if the movement is within the tolerance range.

37.   (Original) The method of claim 36 wherein the tolerance range is a function of recent activity.

38.   (Currently Amended) The method of claim 1 further comprising:

displaying a representation of the three dimensional object in a viewing window; and

automatically providing a scale indicator that relates to an actual dimension of the three-dimensional object.

39.   (Original) The method of claim 38 wherein the scale indicator is one of dimension lines, coordinates, a grid, and a reference object.

40.   (Previously Presented) The method of claim 1 further comprising:

displaying a representation of the three dimensional object in a viewing window; and

automatically providing a color reference to allow for calibration of color of a display device.

41.   (Previously Presented) The method of claim 1 further comprising:

displaying a representation of the three dimensional object in a viewing window; and

automatically selecting a display background based on at least one characteristic of the object.

42.   (Previously Presented) The method of claim 1 further comprising:

analyzing a data file representing the three dimensional object to automatically identify at least one observable characteristic of the three dimensional object;

rendering a representation of the three dimensional object from the data file; and

automatically adjusting a virtual light source to light the representation to improve visibility of a characteristic of interest.

43.   (Currently Amended) A machine readable medium having stored thereon instructions which when executed by a processor cause the machine to perform operations comprising:

analyzing a data file representing a three dimensional object to automatically identify a plurality of views of interest based on at least one observable characteristic of the three dimensional object; ~~and~~

defining an access mechanism to permit the plurality of views to be accessed~~.~~;

tracking user behavior when viewing a representation of the three dimensional object;

inferring from the behavior a view of interest; and

defining an access mechanism to subsequently permit the view to be automatically accessed.

44.   (Currently Amended) A machine readable medium having stored thereon instructions which when executed by a processor cause the machine to perform operations comprising:

rendering a three dimensional representation of an object from a data file;

accepting a definition of a feature of interest;

searching the data file for a region substantially conforming to the definition; ~~and~~

displaying an orientation and magnification that permits viewing of the feature~~.~~;

tracking user behavior when viewing the representation of the three dimensional object;

inferring from the behavior a view of interest; and

defining an access mechanism to subsequently permit the view to be automatically accessed.

Claim 45 (Canceled).

46. (Currently Amended) The machine readable medium ~~of claim 43~~ having stored thereon ~~further~~ instructions which when executed by a processor cause the machine to perform operations comprising:

      analyzing a data file representing a three dimensional object to automatically identify a plurality of views of interest based on at least one observable characteristic of the three dimensional object;

      defining an access mechanism to permit the plurality of views to be accessed;

      displaying a representation of the three dimensional object in a viewing window;

      determining if movement of a control device is within a tolerance range; and

      automatically constraining rotation of the representation to a single axis if the movement is within the tolerance range.